

Amendment To The Claims

Currently amended

1. A radio communication system comprising a base station and a plurality of mobile stations arranged to communicate therewith using a wide band code division multiple access multiplexing technique, the base station operating at a known sampling rate and having a plurality of P separate antennae, where P is an integer greater than one, each arranged to receive a time displaced signal from each mobile station, a multiplexing system for multiplexing the outputs of the antennae at a rate of P times the sampling rate so that the first sample taken from the output of each of the P antenna occurs in a succession of P first samples followed by the P second samples and so on progressively with subsequent samples, a tapped delay line having P x N serially connected elements, where N is an integer greater than zero, connected to the output of the multiplexer system with each Pth element having a tapped output, and a N input correlation means connected to the N outputs of the delay line and operative to cross correlate the outputs from this tapped delay line with a locally generated code signal.

Currently amended.

2. ~~A~~ The system according to Claim 1, wherein the correlation means comprises multiplying means for multiplying the signal arriving at each input with a coefficient determined by said locally generated code, summing means for summing the resultant products for each said inputs, and threshold means for monitoring when each sum exceeds a predetermined threshold to provide a indication of correlation.

Currently amended.

3. ~~A~~ The system according to Claim 1 or to Claim 2, wherein P equals four with two of the four antenna operating in one 120° segment allocated by the base station and the remaining two antenna operating in an adjacent 120° segment allocated by the base station.